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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/747,250
Filing Date: December 21, 2000
Appellant(s): KATSAMBERIS ET AL.

Karin Butchko
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/19/2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences that the appellant considers will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter (Summary of Invention)

The summary of invention contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed On Appeal (Issues)

The appellant's statement of the issues in the brief is correct.

(7) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Prior Art of Record

6,132,889	WELTY	10-2000
6,154,311	SIMMONS, JR.	11-2000
4,143,009	DEWEY	3-1979
6,196,936	MECKEL	3-2001

(9) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 8, 22-24, 26-28, 30-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,132,889 to Welty et al. (hereinafter referred to as Welty) in view of USPN 6,154,311 to Simmons, Jr. et al. (hereinafter referred to as Simmons Jr.)

Regarding claims 8, 22-24, 26-28, 30-32 and 34, Welty discloses an article (column 1, lines 9-26) having on at least a portion of a surface a multi-layer coating (column 1, lines 42-64) comprising a nickel layer with a refractory metal layer deposited on the nickel layer. A refractory metal compound layer, such as zirconium nitride or titanium nitride (column 4, lines 34-48), is deposited on the refractory metal layer. Deposited on the refractory metal compound layer is a layer comprised of a refractory metal oxide, refractory metal alloy oxide, or the

reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen (column 5, lines 11-48).

Welty discloses that the nickel layer provides improved corrosion protection and functions as a leveling layer that tends to cover or fill in imperfections on the substrate (column 3, lines 23-48). Welty does not mention a polymer layer, but Simmons Jr. discloses the use of a polymer layer, in place of a nickel layer, in articles such as faucets, to provide improved corrosion resistance and to level substrates by forming a smooth hard surface (column 2, lines 9-45 and column 6, lines 15-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the nickel layer of Welty, with a polymer layer, as taught by Simmons Jr., because the polymer layer provides a viable alternative to electroplating in addition to providing corrosion resistance while leveling a substrate by forming a smooth hard surface.

Regarding claim 28, Welty discloses that the color and protective layer may provide a brass color (column 1, lines 29-41 and column 4, lines 49-54).

Regarding claims 30-31, Welty discloses that the article may be a faucet or doorknob (column 1, lines 9-26).

Regarding claim 32, Welty discloses that the electroplated layer may be directly on the surface of the article (column 2, lines 24-59).

Regarding claim 34, Welty discloses that the layer comprised of the reaction products of a refractory metal or refractory metal alloy, oxygen and nitrogen may be directly on the color layer (column 5, lines 11-48).

3. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Welty in view of Simmons Jr. as applied to claims 8, 22-24, 26-28, 30-32 and 34 above, and further in view of USPN 4,143,009 to Dewey.

Simmons Jr. does not specifically mention using an epoxy urethane as the polymer layer, but Dewey discloses that a polymer comprising epoxy urethane is generally tough, hard, and rigid (column 3, lines 21-32). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select epoxy urethane as the polymeric base coat material, because epoxy urethane is a suitable polymer capable of forming a smooth hard surface over the covered article.

4. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welty in view of Simmons Jr. as applied to claims 8, 22-24, 26-28, 30-32 and 34 above, and further in view of USPN 6,196,936 to Meckel.

Welty discloses that the color and protective layer may have any desired color (column 4, lines 48-54), but fails to specifically mention nickel color. Meckel discloses refractory metal nitrides, such as chromium nitride and di-titanium nitride, and a refractory metal alloy nitride, titanium aluminum nitride, having the appearance of silver or lustrous gray (column 8, lines 2-15). Silver, lustrous gray, and nickel colors are essentially the same. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of the refractory metal compounds or refractory metal alloy compounds of Meckel as the color and protective layer of Welty, because such a material selection would achieve a commercially desirable conventional nickel color faucet finish. The examiner takes Official Notice that faucets with the finishes of brass and nickel are obvious alternative finishes in the faucet art.

(11) Response to Argument

Issue A

The appellant asserts that Simmons Jr. is directed to an UV reflective photo catalytic dielectric combiner that is self-cleaning, rather than a decorative article that provides abrasion resistance, corrosion resistance, and chemical resistance. The appellant asserts that Simmons Jr. is nonanalogous art. The examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Simmons Jr. is in the field of appellant's endeavor, which is decorative articles such as faucets, and Simmons Jr. is more than reasonably pertinent to the particular problem with which the appellant was concerned, which is providing improved corrosion resistance and to level substrates by forming a smooth hard surface.

Although Simmons Jr. is indeed concerned with an UV reflective photo catalytic dielectric combiner, Simmons Jr. also discloses that the UV reflective photo catalytic dielectric combiner can be used on decorative articles, such as faucets, because such articles are often in contact with bacteria and, therefore, could benefit from a self-cleaning, hard, durable coating (column 2, lines 27-44). Simmons Jr. also discloses that the invention is concerned with "replacing the electroplating process in decorative applications" (column 2, lines 45-48). Simmons Jr. even mentions how the invention is related to "decorative" articles in the abstract. Simmons Jr. is clearly in the field of appellant's endeavor, which is decorative articles such as faucets.

In addition to being in the field of appellant's endeavor, Simmons Jr. is more than reasonably pertinent to the particular problem with which the appellant was concerned, which is providing improved abrasion resistance, corrosion resistance, and to provide level substrates by forming a smooth hard surface. Simmons Jr. discloses that the invention is concerned with replacing layers in the electroplating process while providing a "specular, level, smooth, hard surface"(column 6, lines 16-44). Simmons Jr. also discloses that the invention is concerned with providing a decorative article with the desired scratch (abrasion) resistance and corrosion resistance (column 2, lines 48-51). Simmons Jr. is clearly pertinent to the particular problem with which the appellant was concerned.

The appellant asserts that there is no motivation to replace the electroplated nickel layer of Welty with a polymer layer. The examiner respectfully disagrees. Although Welty does not mention a polymer layer, Simmons Jr. discloses the use of a polymer layer, in place of an electroplated nickel layer, in articles such as faucets, to provide improved corrosion resistance and to level substrates by forming a smooth hard surface (column 2, lines 9-45 and column 6, lines 15-44). Simmons Jr. even discloses that the interest in replacing the electroplating process in decorative applications is not new (column 2, lines 45-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the nickel layer of Welty, with a polymer layer, as taught by Simmons Jr., because the polymer layer provides a viable alternative to electroplating in addition to providing abrasion resistance and corrosion resistance, while leveling a substrate by forming a smooth hard surface.

It is noted that the appellant argues that there is no motivation to replace the electroplated nickel layer of Welty with another layer, yet in the "Background of the Invention" section of the

current specification (see page 2, lines 1-12) the appellant discloses that a replacement layer would provide many benefits including a reduction in costs because electroplating equipment is expensive. Motivation clearly exists to replace the electroplated nickel layer of Welty with a polymer layer.

The appellant asserts that Simmons Jr. fails to teach that a polymer layer is functionally equivalent to a nickel layer. The examiner respectfully disagrees. Simmons Jr. discloses the use of a polymer layer, in place of a nickel layer, in applications such as faucets, to provide improved corrosion resistance and to level substrates by forming a smooth hard surface (column 2, lines 9-45 and column 6, lines 15-44). Specifically, Simmons Jr. teaches that a polymer layer may "replace" an electroplated nickel layer (column 6, lines 29-44).

The appellant asserts that Welty teaches against the replacement of the nickel layer because the nickel layer provides corrosion resistance and acts as a leveling layer. The examiner respectfully disagrees. Simmons Jr. states, "A suitable hard high temperature polymer...has the ability to form a smooth hard surface...and also provides additional corrosion resistance" (column 6, lines 29-33).

The appellant asserts that Simmons Jr. teaches replacing the copper leveling step of an electroplating process with a polymer layer, but that Simmons Jr. does not teach replacing a nickel leveling step of an electroplating process with a polymer layer. The examiner respectfully disagrees. Simmons Jr. clearly states, "The OPB replaces the copper leveling step in the electroplating process and may also replace the depositing of nickel" (column 6, lines 38-40). Simmons Jr. clearly teaches that a polymer layer can replace the entire electroplating process (see column 2, lines 45-51).

Issue B

The appellant asserts that Dewey is nonanalogous art. The examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Dewey is reasonably pertinent to the particular problem with which the appellant was concerned. The problem with which the appellant was concerned was determining which polymer basecoat material possesses the desired material characteristics of a basecoat layer used on an article such as a faucet. Simmons Jr. discloses the use of a polymer layer, in place of a nickel layer, in applications such as faucets, to provide improved corrosion resistance and to level substrates by forming a smooth hard surface (column 2, lines 9-45 and column 6, lines 15-44). Considering that Dewy teaches that a polymer comprised of epoxy-urethane may be used in a number of applications, including as a coating (column 1, lines 5-20 and lines 54-68), and that epoxy-urethane is an extremely tough, hard, and rigid polymer material (column 3, lines 21-32), Dewey is pertinent to the particular problem with which the appellant was concerned which is selecting a polymer with the desired material characteristics to function as a basecoat layer of an article such as a faucet.

Issue C

The appellant argues that the teachings of Meckel are not within Welty's field or Appellant's field and are not reasonably pertinent to the particular problem with which the appellant was concerned. The examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Meckel is reasonably pertinent to the particular problem with which the appellant was concerned. The problem with which the appellant was concerned was providing a refractory metal compound or refractory metal alloy compound with the desired color. Meckel discloses refractory metal nitrides, such as chromium nitride and di-titanium nitride, and a refractory metal alloy nitride, titanium aluminum nitride, having the appearance of silver or lustrous gray (column 8, lines 2-15). Meckel is clearly pertinent to the particular problem with which the appellant was concerned.

In addition to the above argument, the Board of Patent Appeals and Interferences is directed to related application 09/746,474. In related application 09/746,474, the rejection was affirmed based on the exact same Welty (USPN 6,132,889) and Meckel (USPN 6,196,936) references. The board found the references to be analogous.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

3/15/05

ANDREW T. PIZIALI
PATENT EXAMINER

atp
March 11, 2005

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